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The Races of *Diapheromera veliei* (Orthoptera, Phasmidae, Heteronemiinae).

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Recently in our studies of the Orthoptera of Kansas we found that *Diapheromera veliei* Walsh, occurred in its typical form over that entire State, its maximum abundance being reached in the central Great Plains. It is apparently less hardy than *Diapheromera femorata* (Say) as its known northern limits are Lake Hendricks, South Dakota, and Julesburg, Colorado, while toward the foot of the Rocky Mountains in Colorado (except probably in its southern portion) it disappears, this probably due there to the greater elevation and consequently more boreal environment of the plains.

To the south we have it typical as far as Stillwater, Oklahoma, Dalhart, Texas, and Vaughn, New Mexico, and it reaches westward over the lower divides of the Rockies as far as Albuquerque, in the latter State. Further south in Texas and New Mexico, however, we find it supplanted by a geographic race and study of the literature convinces us that that race must bear the name *Diapheromera veliei mesillana* Scudder. The following data lead to this conclusion.

DIAPHEROMERA VELIEI MESILLANA Scudder.

1901. *Diapheromera mesillana* Scudder, Psyche, IX, p. 189. [[Juv.] ♂ ; between Mesilla and Las Cruces, New Mexico.]

1907. *B[acunculus] texanus* Brunner, Insektenfam. der Phasmiden, p. 333. [♂ , ♀ ; Texas.¹]

Scudder described *mesillana* from immature males and, though difficult to associate specifically, we have sufficient such material to be satisfied that the species represented is the same as that

¹ The specimen recorded from New York was either mislabeled or represents a distinct species.

here discussed from large series of adults. In the Rio Grande valley of New Mexico this is the only species of this type present.

Brunner's description of *Bacunculus texanus* is very unsatisfactory. Probably immature material (at least in part), in which femoral spines are often lacking, led to the generic assignment, as there is no Heteronemiid found in the United States in which the adults have both median and caudal femora unarmed. Selecting Texas as type locality of *texanus*, we find that the description fits best the present insect of the forms which occur in that State and we therefore place that name as a synonym. With the wealth of material which was available in preparing "Die Insektenfamilie der Phasmiden" it is very regrettable that the work throughout is so very superficial and inaccurate.

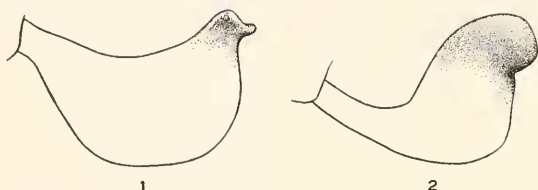


Fig. 1. *Diapheromera veliei veliei* Walsh. Lateral view of male poculum. Syracuse, Kansas. (Much enlarged.)

Fig. 2. *Diapheromera veliei mesillana* Scudder. Lateral view of male poculum. Foothills of Ord Mountains, Brewster County, Texas. (Much enlarged.)

This race differs from typical *veliei* in having the male poculum very broadly lipped, while in the female sex the femoral apices are usually strikingly suffused with black. The head averages broader, but this is apparently not constant, and the female cerci average considerably shorter. Though in all central Texan material the female femoral apices are conspicuously black, this marking is wholly absent in a female before us from Vaughn, New Mexico and in one from El Paso, Texas. It is, however, very decided in a female from Pecos, Texas and in one from Lake Valley, Sierra County, New Mexico. Absence of such marking, never found in typical *veliei*, may indicate that such an individual has developed in different plants or bushes than are usually selected by the present insect.

Intergradation with *veliei veliei* is shown by the following material. A large series from Midland, Texas, has the male procutum as in typical *veliei*; the females have the femoral apices narrowly suffused with black and the cerci very elongate, even more elongate than the average for *veliei veliei*, in which more individual variation in this feature is shown than in *veliei mesillana*. A large series from Melena, Chaves County, New Mexico, is similar except that the female cerci are slightly shorter, though much longer than in *veliei mesillana*.

The range of the present race extends from Lake Valley and Deming, New Mexico, east to Robstown and Cisco, Texas. It was reported from San Diego, Alice and Victoria, Texas, as *veliei* by Caudell in 1918.² It is one of the most abundant and generally distributed Phasmids in central Texas, where it is particularly encountered on the low mesquite trees which there are thickly scattered over the plains. Its area of intergradation with *veliei veliei* apparently extends from central-northern east New Mexico eastward.

Notes on *Tremex columba* Linn. (Hymen.: Siricidae).

In the latter part of May, near my home in the suburbs of Philadelphia, I noticed a maple tree that was dead or nearly so; on examining the trunk of the tree I found numerous larvae of *Tremex columba*. I cut out a section of the trunk about 20 inches long and 10 inches in diameter, taking it home and placing it in one of my breeding cages. The first *Tremex* emerged on June 16. From June 16 to 26, 96 males and 10 females emerged; 7 males and 22 females were obtained from June 27 to July 6, from July 7 to 16, 5 males and 1 female, 6 males and 5 females from July 17 to 31, and 6 males and 4 females during the month of August. In all 162 *Tremex* emerged from this small section cut from the trunk of the tree, —120 males and 42 females. I kept the log for some time but did not obtain any specimens after the month of August. Have wondered how many hundred *Tremex columba* there were in that tree, which was about 25 feet high and 12 inches in diameter.

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² Ent. News, XXIX, p. 25.